

**REMARKS****INTRODUCTION:**

In accordance with the foregoing, claims 15, 21 and 33 have been amended. No new matter is being presented, and approval and entry are respectfully requested.

Claims 1-54 are pending and under consideration. Reconsideration is respectfully requested.

**CORRECTION OF TYPOGRAPHICAL ERRORS:**

Claims 15, 21 and 33 have been amended to correct typographical errors. Applicants apologize for the errors.

**REJECTION UNDER 35 U.S.C. §103:**

In the Office Action, at page 2, numbered paragraph 2, claims 1-54 were rejected under 35 U.S.C. §103(a) as being unpatentable over each of Kikuchi (USPN 5,176,976; hereafter, Kikuchi) and Azuma (USPN 6,573,017; hereafter, Azuma) in view of Kashizaki (USPN 6,228,546; hereafter, Kashizaki). The reasons for the rejection are set forth in the Office Action and therefore not repeated. The rejection is traversed and reconsideration is requested.

It is respectfully submitted that polymers and monomers are different chemical entities. A polymer is a macromolecule formed by the chemical union of a plurality of combining units called monomers. When the monomers are of a single chemical species, the polymer is termed a homopolymer. When the monomers are of varied chemical species, the polymer is termed a copolymer. Polymers may exist in several forms, including straight chains (bonded end to end), branched chains in which long chains have arms coming from branch points, and networks in which long chains are linked together by crosslinking arms to form a crosslinked network of chains. In addition, polymers may be a blend, in which polymer blocks are physically combined rather than chemically bonded. Polymers may also be a graft copolymer, in which various polymer blocks are attached to form a branched polymer. A block copolymer is a polymer typically comprised of linked blocks of homopolymers, copolymers, or a mixture thereof.

Block copolymers often exhibit physical properties distinct from those of the individual monomer or copolymer blocks of which they are composed. As is admitted by the Examiner, it is respectfully submitted that the stilbenquinone compounds of Kikuchi and Azuma are not polymers. Hence, it is respectfully submitted that Kikuchi and Azuma teach away from the polymer of the present invention by only reciting single structures rather than polymers.

In contrast, Kashizaki recites a polymer that has electron transportability, wherein the

monomer structural unit has two substituted benzene rings coupled with a double bond between two carbons of the benzene rings. In contrast, the polymer of the present invention has a monomer structural unit having two substituted benzene rings with a -ring=C-C=ring- coupling. Hence, the monomer structural unit of the present invention provides rotatability and flexibility, as well as greater distance between the rings of the structural monomer, that is not present in the monomer structural unit of Kashizaki. Thus, it is respectfully submitted that the monomer structural unit of the present invention will have a different chemical tertiary structure in comparison with the monomer structural unit of Kashizaki, and will provide different chemical reactivity based on the differing structure.

Thus, it is submitted that, Kashizaki does not recite the monomer structural unit of independent claims 1, 8, 9 and 10 of the present invention, and Azuma and Kikuchi do not recite the polymer structure having the monomer structural unit recited in independent claims 1, 8, 9 and 10 of the present invention. Hence, even if combined, Kikuchi, Azuma, and/or Kashizaki do not recite the polymer structure having the monomer structural unit recited in independent claims 1, 8, 9 and 10 of the present claimed invention.

Thus, it is submitted that independent claims 1, 8, 9 and 10 of the present invention are patentable under 35 U.S.C. §103(a) over each of Kikuchi (USPN 5,176,976) and Azuma (USPN 6,573,017) in view of Kashizaki (USPN 6,228,546), alone or in combination. Since claims 2-7 and 11-54 depend from claim 1, claims 2-7 and 11-54 are submitted to be patentable under 35 U.S.C. §103(a) over each of Kikuchi (USPN 5,176,976) and Azuma (USPN 6,573,017) in view of Kashizaki (USPN 6,228,546), alone or in combination.

#### **CONCLUSION:**

In accordance with the foregoing, it is respectfully submitted that all outstanding objections and rejections have been overcome and/or rendered moot, and further, that all pending claims patentably distinguish over the prior art. Thus, there being no further outstanding objections or rejections, the application is submitted as being in condition for allowance which action is earnestly solicited.

If the Examiner has any remaining issues to be addressed, it is believed that prosecution can be expedited by the Examiner contacting the undersigned attorney for a telephone interview to discuss resolution of such issues.

If there are any underpayments or overpayments of fees associated with the filing of this Amendment, please charge and/or credit the same to our Deposit Account No. 19-3935.

Respectfully submitted,

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